

## Message Text

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ACTION EB-07

INFO OCT-01 EUR-12 EA-09 ISO-00 INT-05 GSA-02 COME-00 /036 W

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FM AMEMBASSY LONDON

TO SECSTATE WASHDC 0654

INFO AMEMBASSY BONN

AMEMBASSY TOKYO

UNCLAS LONDON 05569

PASS BUREAU OF MINES, DEPT OF INTERIOR

E.O. 11652: N/A

TAGS: EMIN UK

SUBJECT: CULTURED QUARTZ PRODUCTION

REF: STATE 82331

1. CULTURED OR SYNTHETIC QUARTZ FOR APPLICATION TO PIEZOELECTRIC CRYSTAL-CONTROLLED OSCILLATION IS PRODUCED BY TWO COMPANIES IN UK: SALFORD ELECTRICAL INSTRUMENTS LTD.' A DIVISION OF UK GENERAL ELECTRIC CO., AND STANDARD TELEPHONES AND CABLES LTD. IT IS BELIEVED THAT MAIN PRODUCTION OF BOTH COMPANIES IS USED IN THEIR INTERNAL ELECTRONIC MANUFACTURING OPERATION. BOTH COMPANIES USE HYDROTHERMAL SYNTHESIS TECHNIQUES BUT NO FURTHER TECHNICAL DETAILS ARE AVAILABLE.

2. FOLLOWING INFO OBTAINED IN CONVERSATION BETWEEN SCIATT AND DAVID HIGHLEY OF INSTITUTE OF GEOLOGICAL SCIENCES, LONDON, AND DR. E. A. FIELDING, TECHNICAL DIRECTOR, SALFORD ELECTRICAL INSTRUMENTS, SALFORD, LANCASHIRE. TOTAL ANNUAL PRODUCTION OF SYNTHETIC QUARTZ IN UK IS ESTIMATED AROUND 12 LONG TONS. DUE TO EXCELLENCE OF QUALITY OF SYNTHETIC CRYSTALS, ALMOST 85 PERCENT OF THIS MATERIAL IS DIRECTLY USABLE IN CRYSTAL OSCILLATORS. SYNTHETIC MATERIAL HAS PRACTICALLY REPLACED NATURAL QUARTZ IN UK FOR ELECTRONIC APPLICATION.

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FIELDING STATES THAT BEFORE INTRODUCTION OF SYNTHETIC

MATERIAL, ONLY 10 PERCENT OF NATURAL QUARTZ WAS USABLE  
IN ELECTRONIC SYSTEMS.

3. EXPORTS: FIGURE VERY DIFFICULT TO OBTAIN, BUT  
FIELDING ESTIMATES TOTAL EXPORT OF SYNTHETIC QUARTZ  
FROM UK IN NEIGHBORHOOD OF 1.5 LONG TONS. MOST OF THIS  
GOES TO OVERSEAS SUBSIDIARIES OF S.T. & C. LTD.

4. FEEDSTOCK QUARTZ (LASCA): FIELDING BELIEVES ABOUT  
1.4 TONS OF LASCA IS NEEDED FOR EVERY TON OF SYNTHETIC  
MATERIAL PRODUCED IN UK. THIS IS BECAUSE OF VERY HIGH  
REJECTION RATE OF SEED MATERIAL. CONSUMPTION OF LASCA  
BY SYNTHETIC QUARTZ PRODUCERS IS ABOUT ON ORDER OF MAG-  
NITUDE SMALLER (AT LEAST) THAN CONSUMPTION BY THE HIGH  
QUALITY GLASS MANUFACTURERS.

5. SOURCES: PRIME SOURCE OF UK LASCA WAS FOR MANY  
YEARS BRAZIL. PRICE HAS RISEN IN PAST 3 YEARS FROM  
AROUND 35 CENTS PER POUND TO 150 CENTS OR MORE. THIS  
HAS LED TO ADDITIONAL SOURCE DEVELOPMENT. UK SOURCES  
NOW INCLUDE USA, INDIA AND AFRICA.

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## Message Attributes

**Automatic Decaptioning:** X  
**Capture Date:** 01 JAN 1994  
**Channel Indicators:** n/a  
**Current Classification:** UNCLASSIFIED  
**Concepts:** QUARTZ, PRODUCTION DATA, MEETING REPORTS  
**Control Number:** n/a  
**Copy:** SINGLE  
**Draft Date:** 09 APR 1976  
**Decaption Date:** 01 JAN 1960  
**Decaption Note:**  
**Disposition Action:** n/a  
**Disposition Approved on Date:**  
**Disposition Authority:** n/a  
**Disposition Case Number:** n/a  
**Disposition Comment:**  
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**Disposition History:** n/a  
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**Status:** NATIVE  
**Subject:** CULTURED QUARTZ PRODUCTION  
**TAGS:** EMIN, UK, US  
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